ABSTRACT OF THE DISCLOSURE

5

10

15

It is disclosed a method of forming fine patterns comprising: covering a substrate having photoresist patterns with an over-coating agent for forming fine patterns, removing the unwanted over-coating agent that has been deposited on the edge portions and/or the back side of the substrate, applying heat treatment to cause thermal shrinkage of the over-coating agent so that the spacing between adjacent photoresist patterns is lessened by the resulting thermal shrinking action, and removing the over-coating agent substantially completely. The invention provides a method of forming fine patterns which has high ability to control pattern dimensions and provide fine patterns that have a satisfactory profile and satisfy the characteristics required of semiconductor devices, with an additional capability of preventing the occurrence of particles which are a potential cause of device contamination.